

A2
cont.

(A) (22 mg) and Sulfo-SMPB (10 mg) were dissolved in a phosphate buffer (pH 7-9) and the resultant solution was stirred for one hour at room temperature. Subsequently, BSA (327 mg) was added thereto and the mixture was stirred at room temperature. After completion of the reaction, the mixture was desalted using a KWIK SEP™ column, to thereby yield a probe (approximately 300 mg).

IN THE CLAIMS

✓
Please cancel Claim 1.

✓
Please amend the claims as shown in the marked-up copy to read as follows:

Please amend the claims as follows:

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2. (Amended) The detection method according to claim 5, wherein the antigenic substance is serum albumin or fluorescein isothiocyanate.

3. (Amended) The detection method according to claim 5, wherein the cDNA expression library is contained in a phage vector.

4. (Amended) The detection method according to claim 5, wherein the drug is non-protein and *per se* exhibits no antigenicity.

✓
Please add the following new claims:

A4

5. (New) A method for detecting a gene of a drug-targeted protein, comprising linking an antigenic substance to a drug via a chemical cross-linker to form a probe;

contacting a membrane to a phage plaque, with a host cell, expressing protein from a cDNA expression library;

- contacting the probe to the membrane;
- detecting a probe-bound phage; and
- determining the gene sequence of the protein expressed from the cDNA expression library contained within the probe-bound phage.
6. (New) The method of claim 5, wherein the host cell is *Escherichia coli*.
7. (New) The method of claim 5, wherein the cDNA expression library is from a mammal cell.
8. (New) The method of claim 5, wherein the cDNA expression library is from a human cell.
9. (New) The method of claim 8, wherein the human cell is a human brain cell.
10. (New) The method of claim 8, wherein the human cell is a human placenta cell.
11. (New) The method of claim 5, wherein the membrane is a nitrocellulose membrane.
12. (New) The method of claim 5, wherein the membrane comprises isopropyl- β -D-thiogalactoside.
13. (New) The method of claim 5, wherein the chemical cross-linker is selected from the group consisting of glutaraldehyde, hexamethylene diisocyanate, hexamethylene diisothiocyanate, N,N'-poly(methylene)bis(iodoacetamide), N,N'-ethylenebis(maleimide), ethylene glycol bis(succinimidyl) succinate, sulfosuccinimidyl-4-(p-maleimidophenyl) butyrate, and bisdiazobenzidine.
14. (New) The method of claim 5, wherein the chemical cross-linker is sulfosuccinimidyl.